## Vocathon – The Usefulness of Board Games in Vocabulary Learning through the Multiple Intelligences Approach

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#### **ABSTRACT**

This paper presents a survey study of an innovation project, titled 'VOCATHON'. It is a language board game that is specifically designed for learning vocabulary at the tertiary level by adapting the psychological basis of Multiple Intelligences Theory by Howard Gardner. Past research has identified that learners' predominant intelligences are significant predictors for language learning that can be manipulated to motivate acquisition and obtain effective outcomes. Vocabulary learning is a crucial process of language acquisition, in which it engages learners' knowledge of word definitions, word formation, collocation, synonyms, and etc. This innovation project comprises a set of board game, which includes lexicons from two fields of discipline, namely, Social Sciences and Science and Technology. This project focuses on the employment of providing the learners with vocabulary items that reflect their multiple intelligences. For this purpose, this study aims to identify the diploma students' acceptance and feedback of the board game by employing the survey method towards the learning of vocabulary through the use of VOCATHON. Based on the survey conducted after playing the board game, the majority of the participants gave positive responses. VOCATHON is asserted to be an effective and practical language board game because it is able to manipulate learners' multiple intelligences as a learning strategy for enhancing their vocabulary skills and motivating their interest in the learning process. By adapting the right approach, it is

important to guide students with diverse multiple intelligences in acquiring vocabulary in order to make language learning more effective and fun.

**Keywords:** Vocabulary learning; language board game; multiple intelligences theory; learning strategy; English language learning

### INTRODUCTION

It is conventional to hear learners complain that they struggle with their English subject. Comments that English vocabulary is difficult to learn and memorise, having a lack of vocabulary to express themselves and difficulties in retrieving vocabulary from their memory are common among learners. Essentially, vocabulary learning is a crucial process of language acquisition in which it engages learners' knowledge of word definitions, word formation, collocation, synonyms, and so on. Research has proved that multiple methods to teaching vocabulary are most effective in acquiring vocabulary skills. These multiple methods and opportunities in language acquisition can be manipulated and play a significant role in enhancing learners' vocabulary. Plato once said, "Do not train children to learning by force and harshness, but direct them to by what amuses their minds." This quote is still as true today as it was in Platos's time, due to multiple reasons, such as bringing language learning to life, encouraging discussions and communication among learners, solving problems, making learning meaningful, providing motivation, and many more. In terms of learning the English vocabulary, creative and interesting techniques, namely, through language games, help break the dreariness and lack of learners' motivation by providing a fun and conducive learning environment (Yasmin & Mohammed, 2019), and this can encourage better retention of new words. Accordingly, games help students retain unfamiliar vocabulary, associate new information with their surroundings, and develop their language and communicative skills. On the other hand, Baş and Beyhan (2010), in their study, suggested that the multiple intelligences approach is effective in developing students' attitudes, and their findings showed that students taught using the multiple intelligences method performed better in comparison to those who learned using the traditional methods. Razmjoo, Sahragard, and Sadri (2009) also reported that there is a significant relationship between multiple intelligences and EFL learners' vocabulary size.

### PROBLEM STATEMENT

Learning English vocabulary is a complicated task for many non-native speakers of English. Words are easily confused due to spelling, pronunciation and similarities. The traditional method of learning vocabulary by presenting a long list of words for students to memorise is ineffective as students' vocabulary is found below the expected level that they should achieve in higher education (Ahmad, Rafizah, Mohammad, Azaharee & Abdul Rashid, 2009). Moreover, common methods of learning vocabulary in isolation from a text, or through synonyms, antonyms, definitions, and giving examples, as well translation and repetition, make learning wearisome for learners (Yasmin & Mohammed, 2019).

In institutions of higher learning, students need to acquire most of the words on their own – a technique that does not give students any meaningful purpose for learning. In addition, similarities in spelling and pronunciation often lead to errors in students' spoken and written productions of the English language. Common errors include principle vs. principal, affect vs. effect, accept vs. except, and many more. Moreover, tertiary students in the fields of Social Sciences and Science and Technology are required to have a sufficient amount of vocabulary in order to effectively comprehend their subject matters. For example, students pursuing their degree in Sports Science should have a sufficient amount of vocabulary to learn related subjects like anatomy, nutrition, and others. One way this can be done is by using board games as they can help students to interact, move and guess the meanings of the words in the games. In addition, students studying business management, for example, can learn vocabulary based on topics, such as negotiation, meetings, and presentation skills. Thus, the fact that vocabulary learning is frequently perceived as dreary, calls for the need of a fun and meaningful approach that could help students learn vocabulary in a more engaging and enjoyable way. Therefore, it is important to implement a creative and effective pedagogical approach in the teaching and learning of English in order to increase learners' vocabulary size to the level that is expected for them to acquire in tertiary education.

### SIGNIFICANCE OF THE STUDY

This study is significant in identifying learners' acceptance and feedback on the innovation project, titled VOCATHON, which potentially enables ESL or EFL teachers to acquire more informed decisions in dealing with language class, especially in preparing student-centred activities. Past research has identified that learners' predominant intelligences are significant predictors for language learning that can be manipulated to motivate learning and achieve effective outcomes. Being a crucial process of language acquisition, vocabulary learning engages learners' knowledge of word definitions, word formation, collocation, synonyms, and etc. Language educators can take into consideration students' different intelligences in teaching and learning as they are able to distinguish their own intelligence pattern (Kagan & Kagan, 1998). By acknowledging learners' multiple intelligences and incorporating fun and practical features in one's pedagogical approach, i.e. adopting board games in language learning and teaching, a conducive learning environment can take place that could generate effective learning output. VOCATHON is asserted to be an effective and practical language board game because it is able to manipulate learners' multiple intelligences as a learning strategy for enhancing their vocabulary skills and motivating their interest in the learning process. Adapting the right approach is important to guide students with diverse multiple intelligences in acquiring vocabulary in order to make language learning more effective and fun.

### **OBJECTIVES**

The objectives of this language board game are twofold. Firstly, based on the importance of vocabulary learning, the innovation project, called VOCATHON, is to device an alternative solution to help students learn English lexicons in a fun and effective way, following the psychological basis of Multiple Intelligences Theory by Howard Gardner. VOCATHON is designed to serve as an effective and practical language board game since it is able to manipulate learners' multiple intelligences as a learning strategy for enhancing their vocabulary skills.

Secondly, this innovation attempts to encourage the use of language board games as an acquisition device, particularly in learning the

English vocabulary. Traditionally known as popular games, board games are fun tools that offer happy times to family members and friends. Value-added with learning aspects, such as the learning of English vocabulary, board games are capable of functioning as a useful device in enhancing one's language skills. Despite the ubiquitous online gaming, as well as smart phone games and applications, traditional board games are a worthy device to play with. For this reason, this innovation project has come out with this language board game.

### LITERATURE REVIEW

The theory of MI (Multiple Intelligences) draws a framework for defining individual differences between people in terms of their abilities and preferences. Intelligence is "the ability to solve problems, or to create products, that are valued within one or more cultural settings". Eight distinct intelligences or so-called MI dimensions are proposed. Each dimension represents a different way of thinking, problem solving and learning. They are defined as follows (Gardner, 2011):

- Visual-spatial intelligence represents the ability to conceptualize and manipulate large-scale spatial arrays (like a pilot does), or more local forms of spaces (like an architect).
- Bodily-kinaesthetic intelligence is the ability to use one's whole body, or parts of the body, to solve problems or create products (like a dancer).
- Musical-rhythmic intelligence implies having sensitivity to rhythm, pitch, meter, tone, melody and timbre (like a musical conductor). This may entail the ability to sing, play musical instruments, and/or compose music.
- Linguistic intelligence suggests sensitivity to the meaning, order, sound, rhythms, inflections, and meter of words (like a poet).
- Logical-mathematical intelligence is the capacity to conceptualize the logical relations among actions or symbols (like a mathematician).
- Interpersonal intelligence represents the ability to interact effectively with others and being sensitive to others' moods, feelings, temperaments and motivations (like a negotiator).
- Intrapersonal intelligence implies being sensitive to one's own feelings, goals, and anxieties, and the capacity to plan and act in the light of one's own traits. Intrapersonal intelligence is not particular to specific careers;

rather, it is a goal for every individual in a complex modern society, where one has to make consequential decisions for oneself.

• Naturalistic intelligence is the ability to make consequential distinctions in the world of nature as, for example, between one plant and another, or one cloud formation and another (like a taxonomist).

The Multiple Intelligence Theory (MIT) unlocks the door to a variety of teaching techniques, which can easily be applied in the language classroom. Teachers can widen their teaching strategies by using various assignments and activities (Armstrong, 2000). The MIT also offers opportunities for students to apply and improve all the different intelligences. It is a part of a teacher's job to look after and help children to develop their own intelligence (Nolan, 2003).

Researchers have also shown some possible relationships between the theory of MI and games. Becker (2007) claimed that there is a link between the written and spoken elements and instructions in games and the development of linguistic intelligence. According to Becker (2007), "this is one reason why children often experience success in learning to read through games like Pokémon". Starks (2014) provided a similar opinion, stating that in-game graphics engage a person's visual intelligence, while the way players move in the game environment engages their spatial intelligence. Jing et al. (2012) delivered an overview of several educational games that can aid in the development of a player's logical-mathematical intelligence. Likewise, Chuang and Sheng-Hsiung (2012) asserted that games can be used as a tool to enhance players' intelligences and learning outcomes.

Additionally, using games in language learning offers many benefits in the teaching and learning processes. In particular, the key purpose of vocabulary games is giving many inputs of vocabulary to the students through learning by playing the game, as they do not need to work hard to memorize some words without applying any tactics and they are able to comprehend many words during the play in an enjoyable atmosphere without any force. In general, games can be related to a kind of intelligence (Akdogan, 2017).

Using games in vocabulary learning is found to be effective because of these three factors, as listed by Huyen and Nga (2003):

- games bring in relaxation and fun for students and indirectly help them remember new words easily.
- games involve friendly competition and keep learners interested. This creates motivation for ESL learners to get involved and take part actively in learning activities.
- vocabulary games bring the real world context into the classroom and increase the students' use of English in a flexible, communicative way.

Enhancing the teaching practice by incorporating board games is equally beneficial to both learners and teachers. Among the advantages of board games to instructors are they allow adaptation to diverse school setting, multiple intelligences and learning styles, text book content, and etc. (Rodilla, 2012). Board games particularly help educators to connect to Gardner's Multiple Intelligences Theory. In fact, one single board game embraces a number of different skills. Lee (1995) noted that board games not only refine the students' linguistic intelligence, but they enhance all the other six MIs, for instance:

**Spatial**: Board games, especially those that involve drawing and matching, visual, perceptions, numbers, letters, shapes, colours, and recognition, can help improve eye-hand coordination, as well as manual, dexterity and visual; for example, *Hide and Seek, Memory and I Spy With My Little Eye.* 

**Logical**: Board games stimulate the brain and prompt critical and quick thinking, reasoning and rationalization, as well as problem solving; for instance, *Who Am I?*, *Checkers or Chess*.

**Mathematical**: Board games involve grouping, counting and calculating, which improve learners' numerical understanding; for instance, *Fizz Buzz or Rummikuh*.

**Intrapersonal:** Board games build up social skills. They provide alternative forms of modality and prompt situations that are valuable for the future working experiences of the students. They foster communication and interaction, bring students closer and help them relate to others and make new friends; for example, *Headbanz, Identity Crisis Game*.

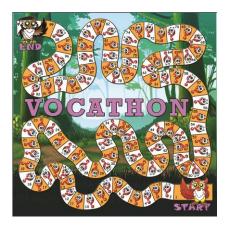
**Interpersonal**: Board games help develop learners' maturity, ability to persist and be true to themselves. They help the learners develop their socially acceptable personality, in which the players require in managing their frustrations, facing the idea of losing, and not to give up; for example, *Who Am I? Never Ending Story*.

**Musical and bodily kinaesthetic**: Most board games require some sort of physical activity and movement: rolling the dice, moving pawns, shuffling cards, making gestures, placing tiles and picking up tokens. Expressions are vital as well as hand gestures that are connected to bodily kinaesthetic intelligence; for example, *Simon Says, Body Boggle and Rock Star Life*.

### **METHODOLOGY**

VOCATHON is an educational device, which is invented to attract learners' interest to learn English vocabulary by manipulating their multiple intelligences as a learning strategy for enhancing their vocabulary skills. This language board game is an improvisation of earlier versions of the invented board games, entitled, 'Mind Your Grammar!' (Metom, Alfred & Joe, 2013) and 'The Grammar Odyssey' (Metom, Tom, Joe & Shuib, 2016). VOCATHON attempts to investigate the use of board games to teach English vocabulary based on the psychological basis of Multiple Intelligences Theory by Howard Gardner.

The researchers invented a language board game, called VOCATHON (see Fig. 1), which consists of a game board, two dices, four game pieces of different colours as the movers, an answer booklet on the vocabulary items, and 1000 question cards (see Fig. 2 for an example of the card). The board game illustrates a trail comprising 100 steps, marked with numbers starting from 1 to 100. The steps in the trail consist of images of question marks (?). The board game is symbolically named VOCATHON, which is a combination of the words 'vocabulary' and 'marathon', since it depicts a running trek of acquiring vocabulary skills as players answer questions every time they step on the trek marked with '?'





Instruction:
Choose a word that has the same meaning as the underlined word in the following sentence.

1. Reports and surveys have concluded that educators, leaders, professional, and others have begun to <u>realise</u> the importance of soft skills for successful career.

a) suppose
b) apprehend
c) presume
d) deduce

Figure 1: The Board Game
- VOCATHON

Figure 2: A Sample of the Vocabulary

Question

### **Participants**

VOCATHON is exclusively designed for undergraduate learners, who wish to improve their vocabulary skills. Notably, it is imperative to move forward by shifting from a conventional method of teaching and learning environment towards a more learner-centred and exciting pedagogy of English language class. For this purpose, an evaluation study was conducted through a focus group experiment involving the undergraduate students. The participants were selected purposively among the diploma level students at UiTM Sarawak, Malaysia. The heads of the faculties were contacted to nominate the students for a voluntary session scheduled on 2<sup>nd</sup> July 2019, which took place at UiTM Sarawak campus. Sixteen (16) students had agreed to participate in this study. This selected group of undergraduate learners, aged 19 years old, comprised students from various ethnicities and academic programmes, and whose English proficiency levels ranged from average to advanced.

### Research Instrument

In terms of the feasibility study of VOCATHON, this innovation utilised a set of questionnaires adapted from Metom et al. (2013, 2016). The questionnaire comprises two parts: Section A and Section B. Section A consists of the respondents' profiles (i.e. age, gender, race, and educational level), whereas Section B consists of ten items relating to the participants'

feedback after playing the language board game. Having mentioned this, the survey was only designed to investigate the respondents' perceptions after playing the board game, as this was vital in order to assess the usefulness of VOCATHON. Validity and reliability tests were also carried out to ensure the psychometric relevancy and consistency of the measured items in the evaluation survey.

The participants were given a briefing on the purpose of the study and how the vocabulary game is played. The game can be played by 4-5 players. All vocabulary questions are related to the students' fields of learning discipline, i.e. Social Sciences, and Science and Technology. Precisely, the question cards encompass vocabulary items for the intermediate level of English language proficiency. The following are two sample questions as stated on the game cards:

# Instruction: Choose a word that has the same meaning as the underlined word in the following sentence.

- i. Reports and surveys have concluded that educators, leaders, professional, and others have begun to **realise** the importance of soft skills for successful career.
  - a) suppose
  - b) apprehend
  - c) presume
  - d) deduce
- ii. One of the most **troubling** things about technology is its correlation with increased rates of depression, particularly in people who spend a lot of time on computers.
  - a) confusing
  - b) worrying
  - c) comforting
  - d) puzzling

To play this language board game, firstly, the players throw the dices, after which the highest score will kick off first. A player who lands on the step marked with '?' will have to pick a card and answer the question stated on it, which relates to a vocabulary item. The player who gives the correct answer to the question will have another chance to roll

the dices and continue playing. However, if the answer given is incorrect, he or she will miss a turn. The first player to reach the step marked '100' will be the winner.

After playing the game, the participants were given an evaluation survey form comprising ten (10) questions that measure the usefulness of VOCATHON. The participants' feedback was measured by the five-level Likert scale ranging from 1 (Strongly Agree) to 5 (Strongly Disagree). A sample item as stated in the evaluation survey form is as follows: *I enjoy playing the board game*. In order to ensure the usefulness of the evaluation survey, validity and reliability tests were conducted as well. Additionally, a factor analysis was also performed to statistically identify the possibilities of usefulness factors of VOCATHON. The findings of the evaluation survey are discussed in the following sections.

### RESULTS AND DISCUSSION

### Respondents' Profiles

Based on the survey results, 16 students from three academic programmes (diploma level) at UiTM Sarawak participated in this study. They encompassed 6 males (37.5%) and 10 females (62.5%), aged 19 years old. They were composed of seven Malays (43.8%), four Ibans (25.0%), two Kadazans (12.5), one Bidayuh (6.3%), one Dusun (6.3%), and one Sinodusun (6.3%). In addition, in terms of their academic programmes, six respondents (37.5%) are undergraduates of Diploma in Sports Science (SR113), five students (31.3%) are from Diploma in Quantity Surveying (AP116), and five students (31.3%) are from Diploma in Health Science (HS110).

Table 1 shows the participants' feedback after playing VOCATHON. In general, the findings revealed positive acceptance of the participants towards the vocabulary game. Precisely, for survey item No. 1, 81.3% (n=13) of the players strongly agreed that they enjoyed playing the board game, whereas 18.3% agreed. For survey item No. 2, 68.8% (n=11) of the players strongly agreed that the features exhibited on VOCATHON were attractive and fun, while 31.3% of them agreed on this aspect.

Table 1: Participants' Statistical Feedback on VOCATHON

		Strongly agree Agree		Neutral		Mean	Std. deviation		
		n	%	n	%	n	%		
1	I enjoy playing the board game.	13	81.3	3	18.3			1.19	.403
2	The features of the board game are attractive and fun.	11	68.8	5	31.3			1.31	.479
3	I learn new things when I play the board game.	10	62.5	6	37.5			1.38	.500
4	Question items are challenging and able to improve my language skills.	10	62.5	6	37.5			1.38	.500
5	Question items are clear and can be easily understood.	5	31.3	8	50.0	3	18.8	1.88	.719
6	The board game encourages me to sharpen my language skills.	11	68.8	5	31.3			1.31	.479
7	Using the board game is a fun way of learning English.	14	87.5	2	12.5			1.13	.342
8	The board game is a practical and meaningful way of learning English.	11	68.8	5	31.3			1.31	.479
9	I will play the board game with my friends and family members in class or at home.	6	37.5	9	56.3	1	6.3	1.69	.602
10	I would recommend this board game to my friends and family members.	11	68.8	5	31.3			1.31	.479

\*Note: The results for 'Disagree' and 'Strongly Disagree' are not displayed in the table above as the responses to these scales were all nil.

For survey item No. 3, 62.5% (n = 10) of the participants strongly agreed that they learned new things when playing the board game, while 37.5% of them agreed on this item. As for survey item No. 4, 62.5% (n = 10) of the players strongly agreed that the question items designed for VOCATHON were challenging and able to improve their language skills, while 37.5% of them agreed that they also felt the same way too. For survey item No. 5, 50% (n = 8) of the players agreed that the question items designed for VOCATHON were clear and could be easily understood, while 31.3% of them strongly agreed on this aspect. Besides, 18.8% of the players were neutral on this part. For survey item No. 6, 68.8% (n = 11) of the players strongly agreed that the board game

encouraged them to sharpen their language skills, while 31.3% respondents agreed on this matter. For survey item No. 7, 87.5% (n = 14) of the participants strongly agreed that using the board game was a fun way of learning English vocabulary, while 12.5% of the respondents agreed on this matter. For survey item No. 8, 68.8% (n = 11) of the players strongly agreed that the board game was a practical and meaningful way of learning English vocabulary, whereas 31.3% agreed on this matter. For survey item No. 9, 56.3% (n = 9) of players agreed that they would play the board game with their friends and family members, 37.5% agreed on this item, while 6.3% chose to be neutral. Finally, for survey item No. 10, 68.8% (n = 11) of the players strongly agreed that they would recommend VOCATHON to their family members and friends, while 31.3% agreed on this matter.

In general, majority of the students responded that the language board game made learning English vocabulary fun and effective, and it enabled them to practise their vocabulary skills. The respondents also expressed that this innovation project was an effective tool in enhancing their vocabulary knowledge while having fun with the language. The items discussed particularly reflect the usefulness of VOCATHON. Thus, a further exploratory factor analysis was performed to investigate the psychometric pattern of the items statistically.

### Validity and Reliability

As mentioned in the methodology section, validity and reliability tests were conducted to ensure the psychometric relevancy and consistency of the measured items in the evaluation survey. First, to establish the face validity, the survey instrument was designed carefully by referring to the existing sample of the programme evaluation form. Second, the evaluation form was later checked by four experts (a native speaker of English, two academicians and an undergraduate student from UiTM Sarawak) to obtain the content validity of the evaluation measure. The questions were refined accordingly to the feedback given by the experts. Third, a reliability test was conducted to check the consistency of the evaluation measure items. Based on the internal reliability analysis, the evaluation measure was found highly reliable and consistent at Cronbach's alpha ( $\alpha$ ) value of .736 ( $\bar{X} = 13.88$ ,  $s^2 = 7.317$  & s = 2.705) (more than the cut-off value  $\alpha = .700$ ). Additional correlational testing was performed to check

the discriminant validity of the surveyed items. Table 2 shows that the survey items are multicollinear to one another. Hence, the results revealed that the surveyed questions are trusted and measurable to identity the players' evaluation on VOCATHON.

Table 2: Correlation Table of the Surveyed Items

		Item 01	Item 02	Item 03	Item 04	Item 05	Item 06	Item 07	Item 08	Item 09	Item 10
Item 01	Pearson Correlation	1									
	Sig. (2-tailed)										
	Ν	16									
Item 02	Pearson Correlation	.367	1								
	Sig. (2-tailed)	.162									
	Ν	16	16								
Item 03	Pearson Correlation	041	.313	1							
	Sig. (2-tailed)	.879	.237								
	Ν	16	16	16							
Item 04	Pearson Correlation	041	.592*	.200	1						
	Sig. (2-tailed)	.879	.016	.458							
	N	16	16	16	16						
Item 05	Pearson Correlation	.086	.315	232	.325	1					
	Sig. (2-tailed)	.751	.235	.388	.220						
	N	16	16	16	16	16					
Item 06	Pearson Correlation	.022	.418	.592*	.592*	073	1				
	Sig. (2-tailed)	.937	.107	.016	.016	.789					
	N	16	16	16	16	16	16				
Item 07	Pearson Correlation	182	.153	.488	.098	.068	.153	1			
	Sig. (2-tailed)	.501	.572	.055	.719	.803	.572				
	Ν	16	16	16	16	16	16	16			
Item 08	Pearson Correlation	.022	.418	.870**	.313	073	.709**	.561*	1		
	Sig. (2-tailed)	.937	.107	.000	.237	.789	.002	.024			
	Ν	16	16	16	16	16	16	16	16		
Item 09	Pearson Correlation	.258	.130	.194	.194	.212	.361	122	.130	1	
	Sig. (2-tailed)	.336	.631	.472	.472	.431	.169	.654	.631		
	N	16	16	16	16	16	16	16	16	16	
Item 10	Pearson Correlation	324	.127	.313	.313	073	.418	.153	.127	.361	1
	Sig. (2-tailed)	.221	.639	.237	.237	.789	.107	.572	.639	.169	
	N	16	16	16	16	16	16	16	16	16	16
*. Correlation is significant at the 0.05 level (2-tailed).											

Correlation is significant at the 0.05 level (2-tailed).

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

### **Exploratory Factor Analysis (EFA)**

Although Bartlett's Test of Spherecity revealed a significant value (p < .5), the Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy accounted for .476, which showed insufficiency of the sample (p > .6) to perform the factor analysis. The measure of sampling adequacy (MSA) scores showed some of the items accounted for less than the cut-off point of .5. The result suggests that those items with anti-image correlations that scored less than the cut-off point of .5 in the weighting scale are opted for deletion. However, for the purpose of this paper, we decided to keep those items to be in line with prior studies (i.e. Metom et al., 2013, 2016).

Results of the Total Variance Explained test (with an eigenvalue of 1.00 or higher) on the item-grouping or pattern loadings revealed some difficulties in extracting the possible factor structure of the validation instrument. Hence, we believe that it is displayed that way due to the insufficient number of participants in validating VOCATHON. However, the rotated factor procedure showed the validation measure accumulated 34.942% of the variance. This factor is reflected as 'experiential' to the tacit benefits of VOCATHON. In addition, this result showed that the surveyed items reflect different forms of English learning experiences obtained through VOCATHON. Foremost, the results of EFA analysis recommend that future studies should include more participants to validate the validation instruments for VACATHON.

# Usefulness of the Language Board Game – Learning Aspect and Manifestation of VOCATON

As can be seen from the respondents' vastly positive acknowledgement of VOCATHON, it can be concluded that the board game is a useful and practical tool for teaching and learning English vocabulary. Value added with familiar items from their fields of discipline, VOCATHON offers the learners a sense of connection to what they have been learning throughout their tertiary endeavours. In addition, the board game is a fun tool that helps get the students to be active in their learning. It activates the learners' interest by creating a relaxed, friendly and anxiety-free environment, which makes learning the vocabulary items an enjoyable experience. Besides, the board game also motivates the learners to communicate with one another in English while playing the language game. It also makes language learning more real and offers the players a

sense of relevance in learning the English language. As stated by Celce-Murcia and Mcintosh (1979:54), "language use takes precedence over language practice, and in this sense games help bring the classroom to the real world, no matter how contrived they may be." Incorporating games into language teaching and learning provides learners with an entertaining and relaxing learning atmosphere, in which this may lower their stress and anxiety in language learning (Krashen, 1982). Furthermore, when games are integrated into language learning, this makes the process highly appealing since games are entertaining and simultaneously thought-provoking. Clark (1982) also argued that games can be used as a way to assess and rehearse language lessons in a fun and entertaining way. The language board game is also a revision for vocabulary exercises put in a fun context.

Based on the MI theory, VOCATHON applies six out of the eight stated principles. The six MIs involved in the board game are: linguistic intelligence, logical-mathematical intelligence, spatial/visual intelligence, kinaesthetic intelligence, interpersonal intelligence, intrapersonal intelligence (Gardner, 2011; Razmjoo et al., 2009). From our observation on the students while trying out VOCATHON, the verballinguistic intelligence feature in the learners was triggered when language was used to express and understand thoughts through spoken words. The players had to answer questions in the target language, which is English. In this setting, they seemed to be motivated and felt less shy to speak in English as all their peers were doing so. The game facilitator also encouraged the learners to speak in English and ensured that they did not use their mother tongue (Malay, Bidayuh, or Iban) while playing the game. They tended to be more alert when listening to the questions posed in order to answer them correctly. This apparently trained the students in both listening and speaking in English. Hence, it can be concluded that VOCATHON encourages learners' interest to learn vocabulary through the psychological basis of Multiple Intelligences Theory, as well as its fun features, which create an enjoyable atmosphere for language learning. The board game is equipped with fun and colourful elements to attract players and it indirectly offers a platform for language learning to occur. Moreover, the features of VOCATHON also promote learners' interaction.

VOCATHON also caters to the interpersonal intelligence in learners as they interact with peers and learn through collaboration and

cooperation in a team environment. In particular, the good students can teach the weaker students on certain knowledge and skills (Gardner, 2011; Armstrong, 2000). In addition, students will be able to acquire the social skills of communicating and expressing their thoughts. Furthermore, VOCATHON encourages students to use and practise English more often. Based on our observation, the aspect of logical-mathematical intelligence in the students was stimulated when they recognized the recurring patterns involving numbers. This happened as the players moved on the board. This intelligence was also noticeable when the players applied their problem-solving skills in answering the questions and strategized their tactics. The students solved the questions thrown to them and came up with a tactic to play and attempted their best to win the game.

Moreover, VOCATHON captures students' visual-spatial intelligence through the shapes, colours and images designed on the board. Players move on the board as tokens in the game (Razmjoo et al., 2009; Gardener, 2011; Rodilla, 2012). These elements in VOCATHON generate interest and excitement among the learners. The bodily-kinaesthetic intelligence in a student is activated through the movements of the player (as a token) from one number to another on the game board, as indicated by the dices. The student is very much engaged in the game as he/she moves forward on the game board and tries to reach the 'FINISH' point. The players are kept alert throughout the learning process as they follow the counting and movements of other players when they themselves are not moving; thus, they are not confined to their seats in the classroom.

Last but not least, VOCATHON caters to the intrapersonal intelligence in a student. Through VOCATHON, the student becomes aware of the quest of his/her own learning process. He/She takes charge and becomes more responsible for his/her own learning in his/her attempt to win the game. Learning then becomes a student-centred activity.

### RECOMMENDATION

As mentioned earlier, the study only investigated the students' perceptions after playing the game, which may not be conclusive enough to regard it as an effective tool for learning and teaching vocabulary. Hence, for future research, it is recommended that a pre-test and a post-test should be carried

out to provide more concrete and comprehensive justification on the effectiveness of the board game in enhancing students' vocabulary.

### CONCLUSION

As can be seen from the survey results and discussions, it can be concluded that VOCATHON is a useful and practical tool for vocabulary learning, especially for tertiary students of the diploma level. It is an efficient and functional language board game as it manipulates learners' multiple intelligences as a learning strategy for improving their vocabulary skills. This product can be used by any English language educators—as a fun and effective teaching tool in his/her language lessons, and it is especially useful in teaching vocabulary. Families can also utilize this board game to enhance their children's vocabulary skills. This board game is highly recommended for every school or institution resource centre to provide a teaching aid for a practical, fun and educational means of teaching and learning vocabulary. The board game is also attractive to any individuals who wish to enhance and sharpen their vocabulary skills.

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### REFERENCES

- Akdogan, E. (2017). Developing vocabulary in game activities and game materials. *Journal of Teaching and Education*, 7(1), 31-66.
- Armstrong, T. (2000). *Multiple intelligences in the classroom* (3rd ed.). USA: ASCD Member Book.
- Becker, K. (2007). Pedagogy in commercial video games. In D. Gibson, C. Adrich, & M. Prensky (Eds.), *Games and simulations in online*

- *learning. Research and development frameworks* (pp. 21-47). Hershey, PA: Information Science Publishing.
- Chuang, T.-Y., & Sheng-Hsiung, S. (2012). Using mobile console games for multiple intelligences and education. *International Journal of Mobile Learning and Organisation*, 6(3-4), 204-217.
- Ahmad, A. M., Rafizah, M. R., Mohammad, F. Y., Azaharee, A., & Abdul Rashid, M. (2009). Vocabulary learning strategies of adult ESL learners. *The English Teacher*, *38*, 133-144.
- Baş, G., & Beyhan, Ö. (2010). Effects of multiple intelligences supported project-based learning on students' achievement levels and attitudes towards English lesson. *International Electronic Journal of Elementary Education*, 2(3), 365-386.
- Celce-Murcia, M., & Mcintosh, L. (Eds.). (1979). *Teaching English as a second or foreign language*. New York: Newbury House.
- Clark, R.C. (Ed.). (1982). *Index card games for ESL*. Brattleboro: Pro Lingua Associates.
- Gardner, H. (2011). Frames of mind: The theory of multiple intelligences. New York: Basic books.
- Huyen, N.T.T., & Nga, K.T.T. (2003). Learning vocabulary through games: The effectiveness of learning vocabulary through games. ASEAN EFL Journal.
  - Retrieved from http://www.isetl.org/ijtlhe157/pdf/ijtlhe157.pdf
- Igbaria, M., Parasuraman, S., & Badawy, M. K. (1994). Work experiences, job involvement, and quality of work life among information systems personnel. *MIS Quarterly*, *18*(2),175-201.
- Jing, L., Sujuan, M., & Linqing, M. (2012). The study on the effect of educational games for the development of students' logic-mathematics of multiple intelligence. *Physics Procedia*, *33*, 1749-1752.

- Kagan, S., & Kagan, M. (1998). Multiple intelligences: The complete multiple intelligences book. California: Kagan Cooperative Learning.
- Krashen, S. (1982). Principles and practice in second language acquisition. Oxford: Pergamon.
- Lee, S. K. (1995, January-March). Creative games for the language class. *Forum*, *33*(1), 35.
- Metom, L., Tom, A. A., & Joe, S. (2013). Mind your grammar! Learning English grammar the fun way. *Journal of Educational & Social Research*. Special Issue, 3(7), 402-407.
- Metom, L., Tom, A. A., Joe, S., & Shuib, A. R. A. (2016). The grammar odyssey. *European Journal of Language and Literature*, 2(3), 54-63.
- Huyen, N. T., & Nga, T. (2003) The effectiveness of learning vocabulary through games. *Asian EFL Journal*, *5*(4). 1-15.
- Nolan, J. L. (2003). Multiple intelligences in the classroom. *Education*, 124(1), 115-119.
- Razmjoo, S. A., Sahragard, R., & Sadri, M. (2009). On the relationship between multiple intelligences, vocabulary learning knowledge and vocabulary learning strategies among the Iranian EFL learners. *The Iranian EFL Journal*, *3*, 82-110.
- Rodilla, R. H. M. (2012). Playful learning in the EFL class: The beneficial use of board games and the LEGO serious play method. Thesis, Master in Teaching English as a Foreign Language, Universidad de Alcalá, Henares, Spain.
- Yasmin, S., & Mohammed, F. (2019). The effect of games on vocabulary retention. *Indonesian Journal of Learning and Instruction*, 2(1), 79-90.
- Starks, K. (2014). Cognitive behavioural game design: A unified model for designing serious games. *Frontiers in Psychology*, *5*, (28), 1-10.